

PATENT
IBM Docket No. RAL9-2000-0057US1

REMARKS

The present application was subjected to a restriction requirement and claims 1 - 4 are presently elected for prosecution. Claims 5 and 6 were withdrawn from consideration as being drawn to a non-elected invention.

The Examiner has specifically requested notification of "any reference(s) known to qualify as prior art under 35 U.S.C. sections 102 or 103." The Official Action goes on to state that "a simple statement that the query has been made and no prior art found is sufficient to fulfill the request." Applicants can confirm that the query has been made and that neither the Applicants nor their attorney know of any further prior art.

Though the Applicants do not wish to further oppose the Examiner's findings with respect to the Applicants' traversal of the election requirement, a small but important correction is needed to the Official Action comments relating to the election. The Official Action states that "claims 5-6 recite translating virtual and physical memory addresses for passing bit streams of data within a network" and "claims 1-4 recite the structure of the network." As will be discussed in more detail below, each of these statements is incorrect. Claims 5-6 do not discuss data transfer in a network at all, but within a single computer system. Similarly, claims 1-4 do not cover the 'structure of the network' but the structure of a single computer system encompassing the present invention.

The Official Action objects to the disclosure because the reference to Figure 1 on page 9, line 27 should be a reference to Figure 2. An amendment to the specification is submitted herewith correcting this error.

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The Official Action states that claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minyard et al. (U.S. Pat. No. 6,487,606) in view of Bass et al. (U.S. Pat. No. 6,460,120). The Official Action states that "Minyard teaches a network system as shown in Figure 2." Figure 2 of Minyard shows what is clearly a network connecting a plurality of systems, the example of an Ethernet network being given for the network. The comments in the Official Action make it clear that the various computer systems within the network shown in Minyard are used to provide the elements of the claims of the present invention. For instance, the Action states "the claimed plurality of interface processors corresponds to the co-processors 62, 64, 66 and 68", co-processors 62, 64, 66 and 68 each being part of a different computer system. The Action also states that "the co-processors function as a front end interface between the network 30 and the CPUs..." This is in stark contrast to the present invention.

In contrast to Minyard, the present invention provides a new application for a known component - the network processor. It is known to use a network processor between computers in a network to help control network traffic and relieve the CPUs of the computer systems in the network of overhead work associated with the network communications. It is this type of environment to which Minyard is drawn. However, the present invention is drawn toward utilizing a network processor within a single computer system to help control and direct the communication between components of the computer system to free the computer's CPU for other work. Such a computer system may not necessarily even be connected to a network. Applicants feel that the utilization of the Minyard reference with respect to the present application is inapposite and fails to provide the most important elements of the base claim (claim 1) of the present application, namely, for example:

- "a network processor operatively interposed between said central processing unit and said peripheral devices and among said peripheral devices";

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- "said network processor cooperating with said central processing unit in directing the exchange of data between said input/output ports and the flow of data through said data memory to and from said volatile memory and said non-volatile memory...."

Taking note that, importantly, the entire claim 1 is directed to "a computer system" and nowhere mentions a network or any communication external to the computer system whatsoever.

Similarly, the Bass reference does not provide any of the above elements as it is directed to specific functions, capabilities and structures associated with certain specific network processors. The present invention is not directed necessarily toward specific features of the network processor, but to a new and novel application of the network processor concept.

The present specification makes this new application of the network processor clear. For example, on page 5 starting with line 1, it states "The hardware employed inserts into an otherwise conventional system... .. a form of switching more conventionally found heretofore at the network level..." And goes on to add "the present invention applies internally within a computer system certain technology recently proposed for use externally of such systems." See also, page 11, lines 19-20, page 11, line 24 to page 12, line 4. These excerpts and much of the rest of the present specification make it clear that this application is for a novel and useful application of a network processor within a single computer system to provide substantial and non-obvious benefits to the operation of the system.

Also, please note that Claim 2 of the present invention, depending from claim 1, is further patentable over any prior art of record by requiring that the network processor be formed on a single semiconductor substrate. Claims 3 and 4 each depend directly from claim 1 and therefore inherit the limitations of claim 1. As such, claims 3 and 4 are also patentable over the prior art of record.

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As discussed above, Applicants feel that the claims remaining in the present application, claims 1 - 4 stand in condition for allowance over the prior art of record and respectfully request early notification of the same. If the Examiner feels that questions of patentability remain and that an interview would be helpful in resolving the remaining issues, the favor of a phone call to the Applicants' attorney at the number given below is requested.

Respectfully submitted



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